p1105: Factoring when $a = 1$ (v14)

Example: Factor $x^2 + 5x - 24$

Find two numbers whose product is -24 and whose sum is 5. Focus on finding factor pairs of -24. Eventually you consider 8 and -3 because $(8)(-3) = -24$. You verify this pair is correct because $(8) + (-3) = 5$. Thus, your answer:

$$(x + 8)(x - 3)$$

1. Factor $x^2 - 13x + 36$

2. Factor $x^2 - 6x + 5$

3. Factor $x^2 + 13x + 36$

4. Factor $x^2 + 13x + 40$

5. Factor $x^2 - 5x - 6$

6. Factor $x^2 - 5x - 24$

7. Factor $x^2 + 5x + 6$

8. Factor $x^2 - 3x - 18$

9. Factor $x^2 + 13x + 42$

10. Factor $x^2 + 8x + 12$

11. Factor $x^2 - 64$

12. Factor $x^2 - 81$

13. Factor $x^2 - 5x - 14$

14. Factor $x^2 + 10x + 25$

15. Factor $x^2 - 2x - 63$